Reviewer's report

Title: Macular Thickness Measurements in Healthy Norwegian Volunteers: An Optical Coherence Tomography Study.

Version: 3 Date: 29 March 2010

Reviewer: Rong- Kung Tsai

Reviewer's report:

Authors have revised all my concern for comment. However, they extended the length of discussion between hormone and macular thickness and added the references from 30 to 86.

1. My major concern for the revised manuscript is that the main purpose of this study is to test author’s hypothesis: MMT measurements in Norwegians could differ from measurements in other populations (P5L8). The second goal is to assess the effect of age, gender, parity and the use of oral contraception on macular thickness in our study sample. The lengthy discussions between estrogen and macular thickness are speculative and confusion. Take an example: The data on Table 4 do not support following discussion: P12L11 (Normal aging seems to affect macular cone function [46] but not foveal cone density [47]. Most [44, 45, 48-54] but not all [28, 55] studies on the OCT did not report an association between foveal thickness and age in mixed gender group, which is in agreement with our study. However, our data suggest an increase in foveolar thickness with increasing age, which also confirms Kashani et al.’s [30] observation.)

2. Discussion P14L8 ” This is congruent with our hypothesis that subclinical age-related para-inflammation may accelerate with declining estrogen levels and thus lead to increased MFT on the OCT.” This hypothesis did not appear in introduction and cannot be tested by the data provided in this study. The reasons are: 1. no estrogen level been tested and 2.OCT is not a functional but an anatomic measurement.

3. This study provided some preliminary data between hormone and macular thickness. However, the discussion is far away from the evidences provided by authors. They should concise the discussion and delete the speculative part.

Level of interest: An article whose findings are important to those with closely related research interests

Declaration of competing interests:

I declare that I have no competing interests